AMENDMENTS TO THE CLAIMS

Please amend claims 60, 66, 68, 81, 90, 92, 93, 95, and 96 as follows:

60 (Currently amended). A process for the preparation of a transgenic plant, which process comprises:

(i) transforming a plant cell with a chimeric gene comprising (a) a promoter that directs gene expression in a plant, said promoter being operably linked to (b) a coding sequence which encodes for phosphofructokinase; and

(ii) regenerating a plant from the transformed plant cell;

wherein expression of said chimeric gene in said regenerated plant causes a modification of the amount of a metabolic intermediate:

(a) in the pre-existing intracellular pathway of glycolysis.

(b) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(c) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

61 (Previously added). The process of claim 60, wherein said chimeric gene also comprises a coding sequence encoding a second enzyme.

62 (Previously amended). The process of claim 60, wherein said chimeric gene is expressed in a tuber of said regenerated plant.

63 (Previously added). The process of claim 60, wherein said chimeric gene is expressed in a seed of said regenerated plant.

64 (Previously added). The process of claim 60, wherein the coding sequence is from a plant gene.

65 (Previously added). The method of claim 60, wherein the coding sequence is from a non-plant gene.

66 (Currently amended). A transgenic plant comprising a chimeric gene which comprises;

(a) a promoter that directs gene expression in a plant, said promoter being operably linked to

(b) a coding sequence which encodes phosphofructokinase,

wherein expression of said chimeric gene in said transgenic plant causes a modification of the amount of a metabolic intermediate:

(i) in the pre-existing intracellular pathway of glycolysis,

(ii) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(iii) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

67 (Previously added). The transgenic plant of claim 66, wherein the chimeric gene also comprises a coding sequence that encodes a second enzyme.

68 (Currently amended). A process for the preparation of a transgenic plant, which process comprises:

(i) transforming a plant cell with a chimeric gene comprising (a) a promoter that directs gene expression in a plant, said promoter being operably linked to (b) a coding sequence which encodes an enzyme selected from the group consisting of pyruvate kinase, acid invertase, starch synthase, sucrose synthase, 6-phosphofructokinase (pyrophosphate) and sucrose phosphate synthetase; and

(ii) regenerating a plant from the transformed plant cell;

wherein expression of said chimeric gene in said regenerated plant causes a modification of the amount of a metabolic intermediate:

(a) in the pre-existing intracellular pathway of glycolysis.

(b) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(c) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

69 (Previously added). The process of claim 68, wherein the chimeric gene comprises coding sequences encoding two or more of the enzymes selected.

70 (Previously added). The process of claim 68, wherein the enzyme is pyruvate kinase.

71 (Previously added). The process of claim 68, wherein the enzyme is starch synthase.

72 (Previously added). The process of claim 68, wherein the enzyme is sucrose synthase.

73 (Previously added). The process of claim 68, wherein the enzyme is acid invertase.

74 (Previously added). The process of claim 68, wherein the enzyme is 6-phosphofructokinase (pyrophosphate).

75 (Previously added). The process of claim 68, wherein the enzyme is sucrose phosphate synthetase.

76 (Previously added). The process of claim 68, wherein said chimeric gene also comprises a coding sequence encoding a second enzyme.

77 (Previously amended). The process of claim 68, wherein said chimeric gene is expressed in a tuber of said regenerated plant.

78 (Previously added). The process of claim 68, wherein said chimeric gene is expressed in a seed of said regenerated plant.

79 (Previously added). The process of claim 68, wherein the coding sequence is from a plant gene.

80 (Previously added). The process of claim 68, wherein the coding sequence is from a non-plant gene.

81 (Currently amended). A transgenic plant comprising a chimeric gene which comprises:

(a) a promoter that directs gene expression in a plant, said promoter being operably linked to

(b) a coding sequence which encodes an enzyme selected from the group consisting of pyruvate kinase, acid invertase, starch synthase, 6-phosphofructokinase (pyrophosphate), sucrose synthase and sucrose phosphate synthetase,

wherein expression of said chimeric gene in said transgenic plant causes a modification of the amount of a metabolic intermediate:

(i) in the pre-existing intracellular pathway of glycolysis,

(ii) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(iii) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

82 (Previously added). The transgenic plant of claim 81 wherein the chimeric gene comprises coding sequences encoding two or more of the enzymes selected.

83 (Previously added). The transgenic plant of claim 81, wherein the enzyme is pyruvate kinase.

84 (Previously added). The transgenic plant of claim 81, wherein the enzyme is starch synthase.

85 (Previously added). The transgenic plant of claim 81, wherein the enzyme is acid invertase.

86 (Previously added). The transgenic plant of claim 81, wherein the enzyme is sucrose synthase.

87 (Previously added). The transgenic plant of claim 81, wherein the enzyme is 6-phosphofructokinase (pyrophosphate).

88 (Previously added). The transgenic plant of claim 81, wherein the enzyme is sucrose phosphate synthetase.

89 (Previously added). The transgenic plant of claim 81, wherein the chimeric gene also comprises a coding sequence that encodes a second enzyme.

90 (Currently amended). A transgenic plant comprising a chimeric gene which comprises:

(a) a promoter that directs gene expression in a plant, said promoter being operably linked to

(b) a first coding sequence which encodes phosphofructokinase and a second coding sequence which encodes an enzyme selected from the group consisting of pyruvate kinase, acid invertase, starch synthase, adenosine diphosphoglucose pyrophosphorylase, sucrose synthase, 6-phosphofructokinase (pyrophosphate) and sucrose phosphate synthetase,

wherein expression of said chimeric gene in said transgenic plant causes a modification of the amount of a metabolic intermediate:

(i) in the pre-existing intracellular pathway of glycolysis,

(ii) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(iii) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

91 (Previously added). The transgenic plant of claim 90 which is a barley, wheat, maize, rice, cotton, lettuce, melon, pea, petunia, potato, rape, soyabean, sugar beet, sunflower, tobacco or tomato plant.

92 (Currently amended). A transgenic potato plant comprising a chimeric gene, which comprises:

(a) promoter that directs gene expression in a potato plant, said promoter being operably linked to

(b) a first coding sequence which encodes acid invertase, and

(c) a second coding sequence which encodes an enzyme other than acid invertase,

wherein expression of said chimeric gene in said transgenic potato plant causes a modification of the amount of a metabolic intermediate:

(i) in the pre-existing intracellular pathway of glycolysis,

(ii) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(iii) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

93 (Currently amended). A chimeric gene comprising:

(a) a promoter that directs gene expression in a plant, said promoter being operably linked to

(b) a coding sequence which encodes an enzyme selected from the group consisting of phosphofructokinase, pyruvate kinase, acid invertase, starch synthase, sucrose synthase, 6-phosphofructokinase (pyrophosphate) and sucrose phosphate synthetase,

wherein expression of said chimeric gene in a plant cell modifies the amount of a metabolic intermediate:

(i) in the pre-existing intracellular pathway of glycolysis,

(ii) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(iii) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

94 (Previously added). The chimeric gene of claim 93 also comprising a coding sequence that encodes a second enzyme.

95 (Currently amended). A transgenic tuber comprising a chimeric gene which comprises:

(a) a promoter that directs gene expression in a tuber, said promoter being operably linked to

(b) a coding sequence which encodes an enzyme selected from the group consisting of phosphofructokinase, pyruvate kinase, acid invertase, starch synthase, sucrose synthase, 6-phosphofructokinase (pyrophosphate) and sucrose phosphate synthetase,;

wherein expression of said chimeric gene in said transgenic tuber causes a modification of the amount of a metabolic intermediate:

(i) in the pre-existing intracellular pathway of glycolysis,

(ii) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(iii) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.

96 (Currently amended). A transgenic seed comprising a chimeric gene which comprises;

(a) a promoter that directs gene expression in a plant, said promoter being operably linked to

(b) a coding sequence which encodes an enzyme selected from the group consisting of phosphofructokinase, pyruvate kinase, acid invertase, starch synthase, sucrose synthase, 6-phosphofructokinase (pyrophosphate) and sucrose phosphate synthetase;

wherein expression of said chimeric gene in a transgenic plant grown from said transgenic seed causes a modification of the amount of a metabolic intermediate:

(i) in the pre-existing intracellular pathway of glycolysis,

(ii) in the pre-existing intracellular pathway for the synthesis or degradation of starch, or

(iii) in the pre-existing intracellular pathway for the synthesis or degradation of sucrose or reducing sugar.